

Application No.: 10/755,042

Docket No.: JCLA8533-D2

REMARKS**1. Present Status of the Application**

Upon this response, claims 163-208 remain pending in the present application. More specifically, claims 1-162 are canceled; claims 163-208 are newly added. It is believed that the foregoing amendments add no new matter to the present application.

2. Response To Objections/Rejections

Applicants respectfully traverse the rejections for at least the reasons set forth below.

Response To Claim 163

As amended, independent claim 163 is recited below:

163. An electronic package comprising:
a substrate comprising silicon;
a die joined with said substrate; and
an upper metallization structure over said die and extending to a place not over said die,
wherein said upper metallization structure comprises an electroplated metal.

Applicants respectfully assert that the chip package claimed in claim 163 patentably distinguishes over the citations by Miura (US5,565,706) and by Vu (US2002/0158334).

Miura et al. teaches that a die 4, 5 or 6 is joined with a substrate 3. An upper metallization structure 9a, 9b, 21a or 21b is over the die 4, 5 or 6 and extends to a place not over the die 4, 5 or 6. ~ See FIGS. 1A-1D and 2E-2H ~ Miura et al. teaches that the substrate 3 comprises ceramic. ~ See line 11, col. 8 ~ However, Miura et al. fails to teach the substrate 3

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may comprise silicon, which is claimed in claim 163. Moreover, Miura et al. fails to teach the upper metallization structure 9a, 9b, 21a or 21b may comprises an electroplated metal, which is claimed in claim 163.

Vu et al. teaches that a die 10 is joined with a substrate 36. An upper metallization structure 20 is over the die 10 and extends to a place not over the die 10. ~ *See FIGS. 8 and 9* ~ The upper metallization structure 20 may comprises an electroplated metal. ~ *See lines 6-8, Paragraph [0029]* ~ Vu et al. teaches that the substrate 36 comprises bismaleimide triazine (BT), various resin-based materials (e.g., epoxy), flame retarding glass/epoxy materials (e.g., FR4), polyimide-based materials, ceramic materials, and various metal materials (e.g., copper). ~ *See lines 14-17, Paragraph [0017]* ~ However, Vu et al. fails to teach that the substrate 36 may comprises silicon, which is claimed in claim 179.

For at least the foregoing reasons, applicants respectfully submit independent claim 163 patently defines over the prior art references, and should be allowed. For at least the same reasons, dependent claims 164-178 patently define over the prior art as well.

Response To Claim 179

As amended, independent claim 179 is recited below:

179. An electronic package comprising:
a substrate comprising silicon;
a die joined with said substrate and comprising multiple internal circuits; and
an upper metallization structure over said die and extending to a place not over said die,
wherein said upper metallization structure comprises a portion connecting said multiple internal circuits.

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Applicants respectfully assert that the chip package claimed in claim 179 patentably distinguishes over the citations by Miura (US5,565,706) and by Vu (US2002/0158334).

Miura et al. teaches that a die 4, 5 or 6 is joined with a substrate 3. An upper metallization structure 9a, 9b, 21a or 21b is over the die 4, 5 or 6 and extends to a place not over the die 4, 5 or 6. ~ See FIGS. 1A-1D and 2E-2H ~ Miura et al. teaches that the substrate 3 comprises ceramic. ~ See line 11, col. 8 ~ However, Miura et al. fails to teach the substrate 3 may comprise silicon, which is claimed in claim 179. Moreover, Miura et al. fails to teach the upper metallization structure 9a, 9b, 21a or 21b may comprises a portion connecting multiple internal circuits of the individual die 4, 5 or 6, which is claimed in claim 179.

Vu et al. teaches that a die 10 is joined with a substrate 36. An upper metallization structure 20 is over the die 10 and extends to a place not over the die 10, wherein the upper metallization structure 20 comprises a portion 62 connecting multiple internal circuits of the die 10. ~ See FIGS. 8 and 9 ~ Vu et al. teaches that the substrate 36 comprises bismaleimide triazine (BT), various resin-based materials (e.g., epoxy), flame retarding glass/epoxy materials (e.g., FR4), polyimide-based materials, ceramic materials, and various metal materials (e.g., copper). ~ See lines 14-17, Paragraph [0017] ~ However, Vu et al. fails to teach that the substrate 36 may comprises silicon, which is claimed in claim 179.

For at least the foregoing reasons, applicants respectfully submit independent claim 179 patentably defines over the prior art references, and should be allowed. For at least the same reasons, dependent claims 180-196 patentably define over the prior art as well.

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Response To Claim 197

As amended, independent claim 197 is recited below:

197. An electronic component comprising:
a die comprising multiple internal circuits; and
an upper metallization structure over said die and extending to a place not over said die,
wherein said upper metallization structure comprises a portion connecting said multiple internal
circuits and used to provide a ground voltage.

Applicants respectfully assert that the chip package claimed in claim 197 patentably
distinguishes over the citations by Miura (US5,565,706) and by Vu (US2002/0158334).

Miura et al. teaches that an upper metallization structure 9a, 9b, 21a or 21b is over a die 4,
5 or 6 and extends to a place not over the die 4, 5 or 6. ~ See FIGS. 1A-1D and 2E-2H ~
However, Miura et al. fails to teach the upper metallization structure 9a, 9b, 21a or 21b may
comprise a portion connecting multiple internal circuits of the die 4, 5 or 6, which is claimed in
claim 197.

Vu et al. teaches that an upper metallization structure 20, 30 or 32 is over a die 10 and
extends to a place not over the die 10. The upper metallization structure 20, 30 or 32 comprises a
portion 62 connecting multiple portions of the die 10. ~ See FIGS. 8 and 9 ~ Vu et al. teaches
that the portion 62 is used to transmit a signal or provide a power distribution. ~ See Paragraphs
[0023] and [0027] ~ However, Vu et al. fails to teach that the portion 62 may be used to
provide a ground voltage, which is claimed in claim 197.

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For at least the foregoing reasons, applicants respectfully submit independent claim 197 patently defines over the prior art references, and should be allowed. For at least the same reasons, dependent claims 198-208 patently define over the prior art as well.

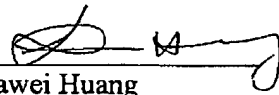
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CONCLUSION

For at least the foregoing reasons, it is believed that the pending claims 163-208 are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

Respectfully submitted,

Date : 7/20/2005
Jiawei Huang
Registration No.: 43,330

J.C. Patents, Inc.
4 Venture, Suite 250
Irvine, CA 92618
Tel.: (949) 660-0761
Fax : (949) 660-0809
E-mail: jcpi@email.msn.com